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THE AGRICULTURAL STUDENT

A MONTHLY MAGAZINE DEVOTED TO AGRICULTURAL EDUCATION



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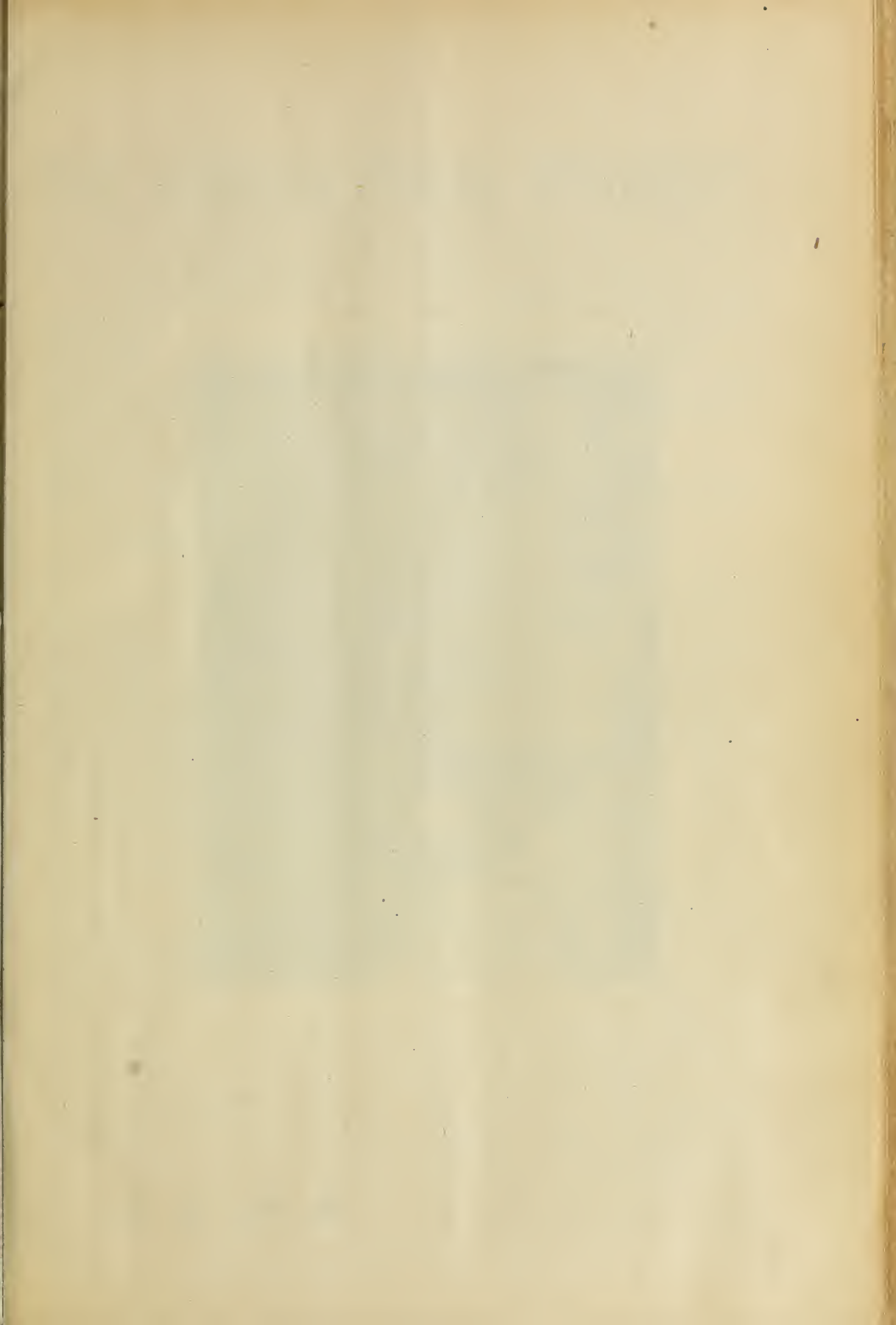
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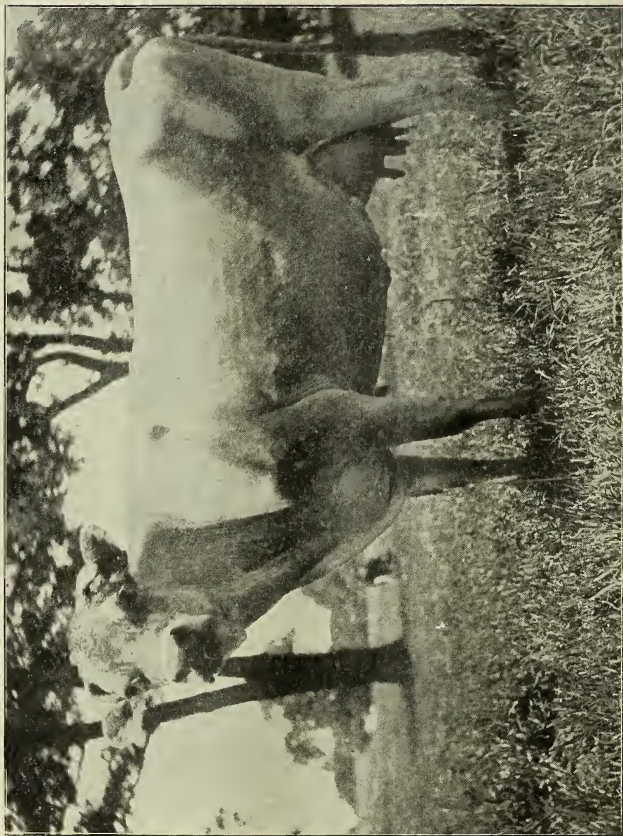
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King of St. L's Jewel of C. H., of the University Herd.

(See page 11)

THE AGRICULTURAL STUDENT.

VOL. X.

OHIO STATE UNIVERSITY, COLUMBUS, OCTOBER, 1903.

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EDITORIAL CHAT.

This issue introduces the tenth volume of THE STUDENT, the beginning of the tenth year of its publication. No radical changes in the general makeup of the magazine are contemplated for the coming year, but it is hoped that the former experience of the editors has not been for naught, and that the character of the publication shall be at least up to the standard of other years. We believe that THE STUDENT has a particular place to fill among agricultural publications both in its relations to the University and to the cause of agricultural education in the state, and that, because of this reason it has a legitimate excuse for its existence. Its field as we see it should pertain almost entirely to agricultural education in the broadest sense of the term; and so far as agricultural practices are concerned these should be left to the large number of excellent farm journals whose object it is to deal with this line of work. Agricultural education is making wonderful strides, and there is an increasing appreciation of its value among present day educators, but the masses of people in city and country are yet greatly in need of



a general awakening as to its advantages. We believe that there is strenuous need of increasing the sentiment that is arising regarding the importance of instilling into the minds of the young through both our colleges and our general school system, that appreciation of nature and of the importance of agricultural pursuits which will solve the problem of our country's agricultural advancement. It is the doing of our part in bringing about a general recognition of the value of agricultural education that we believe to be the office of this publication, and we seek the loyal support of every student and ex-student of the College of Agriculture in this mission.

We wish to call attention once more to the work being done by the Agricultural Student Union, for we believe that the importance of the Union as an organization is only very feebly appreciated by the mass of agricultural student who have gone out from the university. The work that has been accomplished during the past year as compared with former years may be said to be enormous, and its influence is becoming greatly felt throughout the entire state. We feel that there lies within this organization one of the most potent powers for the development of Ohio agriculture that today exists and we believe further that the influence the Union may exert upon the College of Agriculture, upon the Experiment Station and upon the rural schools of the state is of enormous importance to the future of agricultural education and experimentation in Ohio.

The Union has now almost a thousand experimenters upon its roll, representing every county in the state, with the prospects of a number next year of at least twice that figure, if the work can be properly pushed and amply sup-

ported. In fact the limitations of the work appear to lie only in the time and means of the directors in charge of the various divisions. We wish to impress upon the graduates and ex-students of the College of Agriculture, that the Union is rapidly becoming a power in the agricultural development of the state and everyone who has ever been connected with the college and who fails to avail himself of the opportunities offered in affiliating with this organization will lose something out of his life as an Ohio Agriculturist. If a man is to be an agriculturist he should associate himself at once with those things that make for agricultural advancement. If he does not, he has not caught the spirit of an agricultural college; he has vital need of looking at once to the exact status of his point of view.

In this connection should be mentioned a meeting of the officers and directors of the Union which was held during the week of the fair, to discuss future plans for the work. The interest and enthusiasm manifest at this meeting was such as to convince the most pessimistic that the union was becoming a strong factor in the state's agricultural development. A prolonged session was held and the discussion which resulted brought out the fact that radical changes were necessary in the management of the Union owing to the enormous increase in the amount and nature of the work. A committee of five was appointed to devise a scheme of reorganization to meet the present demands that are being made on the Union and to outline such a policy as it sees fit for the future control of the work. A preliminary meeting of this committee was held later in the week and a definite line of action decided upon. The report of this committee will undoubtedly disclose

some startling facts to those who have hitherto looked upon the Union as an organization of little importance and who have refused to become associated with the work. Matters have reached the stage where our ex-students cannot afford to ignore the work of this organization if they expect to make the most advancement in their chosen pursuit. The Union is rapidly becoming a power in the state.

It has been the general feeling among those connected with the College of Agriculture, that it was not reaching far enough in its work and that the large mass of young men and women of the state were not in the remotest degree being touched by the effort which the college was making in the behalf of the extension of agricultural education. This feeling has been growing from year to year, augmented largely by the appreciation of the successful efforts which a number of other institutions have been making in giving their work a wider scope. We refer especially to the systems of University extension work, the correspondence schools and to the introduction of the fundamentals of agriculture or rural science, commonly known as nature study, into the schools in several states.

The need of such work in Ohio has never been denied, but it has been held that the development of the college had not reached a stage when it could legitimately take it up, especially since the proper installation of such a feature into the work would require a large expenditure of money. But matters have been coming to a focus. During the last year the Agricultural Students' Union seriously considered the feasibility of making a division of the work which would have to do with just this sort of thing. We are sorry to announce, however, that the plan was

abandoned because the University refused the small amount of money which was required to start the work. This refusal may have been justifiable—we are not considering that question—but what we wish to emphasize is our firm belief in two things: first, the desirability of the establishment of some such line of work in connection with the college of agriculture, and second, the fact that there is now a definite and tangible demand for its initiation.

An instance that has strengthened our belief in there being a definite demand for this work was the request of Superintendent A. B. Graham of the Springfield Township schools of Clarke County, that a Boy's and Girl's Experiment Club be organized among the pupils of his schools. The matter was referred to the Agricultural Students Union and under the supervision of the Director of the Agricultural Division, a flourishing club of eighty-five members has been maintained in Springfield township the past season. The bulletin referred to elsewhere in this issue entitled "Rural School Agriculture" describes in detail the workings of this club. Other schools have already shown an interest in this line of work and without doubt a decided demand will arise as the result of the issuing of this bulletin. We believe that the time is ripe for the launching of some such form of extension work in connection with the College of Agriculture, and we wish to make an earnest appeal to the ex-students of the college, and to all who are interested, to lend their hearty support to any plan that may be adopted to widen the scope of the work of the college.

The Two Types.

Since the beginning of the earth, variation has existed; all things are not

developed to the same extent. Limestone differs from granite, partly in that its crystallization has not become so fully developed; the oak of the mountain differs from that of the valley, for its foliage is more sparse and the branches are more gnarled.

Not only in nature do we find this variation, but also in the human race. Here, knowledge controls man's development, education gives him his place in the directory of humanity. Most people do not regard this variation of man as existing in the country, but it is as well pronounced on the farm as in the busy city.

Education has classified the farmers into two types. The energetic man who is always improving his farm and who practices the latest methods of agriculture is an example of the first type, while the second class is represented by the farmer who plods along in the footsteps of his ancestors, resembling the feudal serf of yore.

What has given this first farmer his ambition? Was it money? It is often said, in these days that money makes a man, but it is untrue. Man makes money but education makes the man. Indeed, education has given this man his place in life, for he was able to graduate from the state agricultural college. It was there that he learned to make friends among his classmates and to get along in the world; it was there that he became acquainted with the most perfect types of farm animals and the latest methods of agriculture; and it was there, also, that he developed new ideas and plotted out his future. No sooner had he graduated from the college, than he transformed his father's worn-out "place" into a model farm. However, he does not become isolated from the agricultural world, but keeps in daily communication with it, through the agricultural papers experimental

stations, institutes and other associations. It is not surprising that the community looks up to him, for he practices the latest methods of agriculture, keeps the best stock and is always willing to give advice to his neighbors to influence for the best.

How different is the life of the uneducated farmer, it is the same life that his father, grandfather and great grandfather have lived before him. He practices the same methods of agriculture on the old worn-out fields, and the same degenerated stock feed in the tumble-down stables. Why should he do different? He has no communication whatever with the outside agricultural world; he scoffs at the agricultural papers and the state institutions for promoting agriculture. It is this class of the countrymen that is regarded as the "typical farmer" by the city folk. When he comes to the city he is so ignorant that the hustling merchants cheat him and the small boys jeer at him. What a change an agricultural education would have wrought in this man's life, and yet today it is the question in the farmer's mind, "Shall he send his son to the agricultural college?" The uneducated farmers say, "Keep your son at home, the college will ruin him; he can learn agriculture on the farm."

It is now an established fact that the college-bred man succeeds best on this earth, but few people have yet realized that this also has reference to the agricultural college. However, the government has been convinced that the agriculture graduate improves his land, or it would not spend its money so freely in keeping up the institutions. The late President McKinley said: "One of the wisest things this country ever did was to make ample provision for the great agricultural institutions of this land." And yet the farmer hesitates, hesitates to send his son to the agriculture col-

lege. He would rather see him practice the agriculture of the colonial period than to be the leader of the great reformation that is taking place on the American farms today.

E. S. POSTON.

Homer C. Price.

The recent appointment of Homer C. Price, as Professor of Rural Economics in the College of Agriculture, and his election as dean of the Agricultural faculty has met with universal approval. After the resignation of Professor Hunt there were many who were inclined to take a somewhat pessimistic view of the future for the college, but the energy and tact which the new dean has shown in entering upon his work has been such as to increase the faith of the most sanguine. Professor Price is young, but for a man of his years he is very ripe in experience and his training has been thorough. Graduating from the Doane Academy at Granville, Ohio, in 1894 he immediately entered the College of Agriculture at the Ohio State University. In 1897 he was graduated with the degree of Bachelor of Science in Agriculture, having completed the course in three years. In the fall of 1898 he received the fellowship in Agriculture at Cornell University where he spent the year of 1898-9, receiving the degree of Master of Science in Agriculture from that institution. The following fall he returned to the Ohio State University as Assistant in Horticulture, which position he held until the spring of 1901 when he became Professor of Horticulture and Forestry at the Iowa Agricultural College and Horticulturist of the Experiment Station. This position he held until his election at the Ohio State University, and in the time spent with the Iowa institution he succeeded in building up a flourishing department of

horticulture and forestry, the department having been newly organized when he took charge of it. Professor Price therefore comes to us with a great deal of valuable experience in several institutions which has fitted him admirably for his present position.



HOMER C. PRICE.

There is a general feeling that the College of Agriculture is now on a firm foundation owing to the excellent work of Professor Hunt in his connection with the University, and the earnest belief of those now associated in the work is that the College has a wonderful future, if the proper efforts are exerted in its behalf. This feeling, the new dean shares to the fullest extent, and the manner in which he has entered into the work has given great encouragement to his co-laborers. Professor Price's former connection with the University both as student and instructor has made him particularly fitted for his position and has aided him greatly in getting at once in touch with the work. His genial disposition and earnest man-

ner have appealed at once to those with whom he has come in contact, while his broad-minded views, clean cut ideas and careful judgment have impressed all with his fitness for his new duties.

THE STUDENT pledges its most loyal support to the new dean in his effort in behalf of the college.

A Standard of Excellence for the Farmer.

Strange as it may seem there are hundreds and perhaps thousands of farmers in the state today who, at every opportunity ridicule the idea of applying scientific methods in agricultural work, or book farming, as many call it. And yet, every year they perform their work in a certain way, or in other words, according to certain ideals, and however crude these may be, the principles they involve may form the basis of the very truths they have been ridiculing, and which have been written and rewritten time after time, preached and preached again to them and yet, they will not heed the command to move onward and upward, in their chosen line of work, which today is recognized as a true science.

What do we mean when we speak of a standard of excellence? We simply mean an ideal, which is to serve as a guidance for the tiller of the soil, whether he be farmer, fruit grower or a breeder of live stock. It is absolutely impossible to attain marked success in any of these lines of work if our methods are of the hap-hazard kind which are so prevalent in many communities in our state, and the one who attempts to do so is much like the mariner who sails the seas without a compass. He cannot tell where he is drifting, for he is simply trusting to luck. If his crops are good he rejoices in his prosperity, but if they are poor,

what a calamity howl we hear! The business, weather, politics and perhaps his religion are to be found on the condemned list. Little does he think that the remedy lies largely in his own control. If during the previous long winter evenings he had spent his spare time perusing the columns and pages of our best agricultural papers and books, attending his home orange regularly, learning of the successes and failures of other men and had used their advice with a grain of common sense, in forming plans and erecting ideals in his mind for his own guidance in the following year's work, what a difference there would have been; there would have been contentment in place of discontent, and at least partial success in place of total failure. It is not claimed that a standard of excellence is a cure for all the difficulties that beset the tiller of the soil, neither is it a prescribed rule; but what it does is to stimulate the farmer, fruit grower, or breeder to his best effort. With a definite standard in mind he is bound to reach it, if not in one way then in another. Under these influences he will strive to have every crop, every variety of fruit and every animal that is raised on his farm, approach as nearly as possible to a standard of excellence as is within his power to make it, and his efforts will be rewarded by better stock, better crops and better prices for his product when placed on the market, and as the years go by it will be necessary to move these standards a little higher. The cows in the dairy will have reached his former standard in the production of milk and butter. He is able to place his cattle and hogs on the market much earlier than formerly. His crops are yielding much more than the average and are ripening in remarkably uniform manner. All because he has paid the closest attention to the selecting of seed, prepara-

tion of seed bed or to the breeding and feeding of his live stock. In other words, he has been guided in all his efforts by a standard of excellence.

But there is another point equally as important, namely, the same standard is not applicable to all conditions that exist in various parts of the state. This makes it necessary that each farmer should be able to meet and solve his own problem. To be sure the standards adopted by the horticultural societies and breeders' associations are to serve as his guides, but, are all fruit growers, all farmers, all dairymen standing on the same footing? Far from it, even in our own state we have vast differences existing in the soil, as found in the glaciated and non-glaciated regions. Also in climatic conditions as exist, especially between the north and the south. And we all know of the differences that exist in soils in our own countries which cannot help altering conditions for individual farmers, dairymen and fruit growers. Thus it is that it behooves each and every one, if he be farmer, to have a definite idea before putting his hand to the plow what the condition of the soil should be for each and every crop he grows; and what is equally important, he should be sure that he has selected the right kind of seed to produce on ideal crop. If he be dairyman, before buying the first cow he should have a definite idea of the true dairy type. If fruit grower, before setting a single tree he should know what his market demands and that the tree he sets will produce it under proper conditions. And so we might go on through the various lines of agricultural and horticultural work. A poor seed bed seeded with poor seed even in the most favorable season cannot produce a paying crop. So it is in the dairy and orchard. A scrubby cow or tree true to nature will produce a scrubby return.

Some one may ask when and how one is to form a standard? The answer is now, according to the best information to be had. If you are a breeder of dairy or beef cattle ship that scrub bull and select one from the numerous pure breeds, and if your means will not permit, use him on the cows you have. Breed and sort out all animals that do not show improvement and it will only be a matter of a few years until your efforts will be rewarded. Once you have established a standard for one branch of your work, extend your improvement to all branches, and you may surely be regarded as a benefactor for not only will you have made two blades of grass grow where but one grew before, but they will undoubtedly be more perfect blades.

F. RUBINS, '04.

The New York School of Forestry.

The Cornell College of Forestry has been closed for an indefinite period, owing to the failure of the state to appropriate means for its maintenance. The reason for this seems to lie with a number of individuals owning timber land in the region of the college reserve, who objected to the manner in which the tract was being managed. These individuals were men of means and influence and they succeeded in creating such a sentiment against the management of the college lands that the legislature was induced to give no further aid to the enterprise. The whole scheme seems on the face of it to have been the work of selfish individuals and politicians.

Professor Fernow is a recognized authority on forestry in the United States and there is little doubt but that the management of the reserve was based on scientific principles. However this may have been, the fact

remains that the college was compelled to close its doors and a large number of students were turned away from what has been acknowledged to be the foremost school of forestry in the country. The instance should make our western institutions more appreciative of the friendliness of their legislatures and more thankful that wealth and politics have so far not invaded our western country to such an extent as this.

Rural School Agriculture.

The publication of a University bulletin entitled "Rural School Agriculture" was one of the last acts of Professor Hunt before severing his connection with the College of Agriculture—a fit culmination of his long period of most useful work for the University and the cause of agricultural education in Ohio. Professor Hunt always maintained that the hope for Ohio agriculture lay in its rural schools and while the College of Agriculture was destined to a wonderful future we must look to the rural schools—the township high schools largely, as a factor which is to be by far the most potent in bringing about that advancement in agriculture and agricultural education for which the college has been working. This view of the matter is shared by many other agricultural educators throughout the country as is evidenced by the establishment of courses in agriculture in many high schools, in the introduction of elementary agricultural instruction into many rural schools of the lower grades and in the establishment of county agricultural schools in some instances.

We must come to just this point of view in Ohio and must develop along these very lines if we obtain excellence in our system of agricultural education and success in the most complete de-

velopment of the agricultural possibilities of the state. Other states are doing this work and it is the opinion of educators, that rural school agriculture is the most promising field that lies open this work and it is the opinion or education. Let the idea of agricultural education once permeate the rural schools of the state and there will be set into play a power more potent than any other, for the development of the state's agriculture. Moreover, this thing is coming, and the sooner we appreciate the fact and put our shoulders to the wheel the sooner will the ideal be realized.

The exact way that this shall work out is of course not yet plain but it will undoubtedly be largely through the high schools. To be sure nature study for the purpose of instilling into the young a love for nature and for elevating the conception of country life must come and is coming, but there will doubtless never be room for anything but the mere elements of agriculture in the teaching of the primary schools. The office of such work in the lower grades is wholly one of giving the proper point of view to the child; agricultural instruction which shall be of any moment must come later.

In a recent publication on this subject Dr. A. C. True of the United States Department of Agriculture writes:

"During the past few years there has been a rapid growth of interest in questions relating to courses in agriculture of secondary grade. This has been due to several causes operating at the same time. The faculties and equipment of the agricultural colleges have of late been very materially strengthened. The number and variety of the courses in agriculture which they offer have consequently been greatly increased. They are also engaging much more largely in various forms of university extension

work, through the farmers' institutes, correspondence courses, etc. They are thus attracting a larger number of students. The statistics show that the total number of students enrolled in college courses in agriculture in the United States in 1902 is 6299, as compared with 3930 in 1897. But all this development of the agricultural colleges has only served to bring out more clearly the fact that under the best conditions, if they are to maintain their standing as colleges, they can meet the educational requirements of only a small fraction of the youth of our farms. If any considerable body of the farm boys and girls are to receive definite instruction in the principles of agriculture, it must be in schools of lower grade than the colleges. In this respect agriculture stands on just the same footing as any other branch of learning."

After treating thoroughly the present status of agricultural education in the secondary schools with its possibilities the author concludes partly as follows: "A great gain has been made in that there is now seen the real nature of the problems to be solved in order to secure an efficient system of secondary courses in agriculture as a part of the public school system. Active work along this line will now most surely bring valuable results. When the advantages to be derived from such courses in agriculture in the high schools are once clearly demonstrated in a few places it will not be difficult to persuade the taxpayers generally to contribute the necessary funds for their maintenance. * * * Technical education has proved a sure road to commercial development and greatly increased wealth in connection with every industry which has received its benefits. It will prove equally so as regards agriculture. The tremendously productive results which have already come from the work of the

agricultural colleges and experiment stations may be multiplied a hundred-fold by the education of hundreds of thousands of the flower of rural youth in secondary schools in which there is definite and systematic teaching of the technique and scientific principles of agriculture."

Dr. True has had wide opportunity for observing and judging in matters of agricultural education, and his opinions carry much weight. His observations regarding the possibilities in high school agriculture should not go unheeded. May the time speedily come when the people of Ohio shall see the opportunities for agricultural education that lie in the secondary schools of the state, and when they shall demand that steps be taken toward the establishment of courses designed to meet the needs of the vast number of country boys and girls who shall never find it possible to attend college!

THE STUDENT has on hand a few copies of the bulletin above mentioned which will be mailed to interested applicants.

Test of King of St. L's Jewel of C. H., of the University Herd.

I hereby report for publication the following test of the cow, King of St. L's Jewel of C. H. 130559:

This cow was purchased for the Ohio State University at the Columbus, O., combination sale in April, she being sold by Dr. J. G. Bingham, Millersburg, O. She was fresh on April 12 and the sale was on April 16.

The test was conducted by Professor John W. Decker, of the Ohio State University, with the assistance of A. S. Neale and M. O. Bugby. The cow ran on pasture, but she was also fed a small amount of grain and some corn silage.

The test began May 11 and was continued for two weeks, although each week's record was complete in itself. Samples were taken from each milking and Babcock tests made. The milk was run through a separator and the cream placed in a cooler under lock and key and was churned at the expiration of each seven days' milking. For the first week she produced 303.8 pounds of milk, which by Babcock test showed 13.266 pounds of butter fat. The second week she produced 297.8 pounds of milk, which showed 12.457 pounds of pure butter fat by Babcock test. During these two weeks her daily milk flow ranged over 40 pounds with exception of the fourteenth day, when it fell to 38.3 pounds; while her heaviest daily yield was 45.8 pounds on the eighth day.

The amount of fat in her milk averaged the first week 4.4 per cent., and the second week 4.2 per cent. From the first week's milkings were secured 40 pounds of cream. This was placed in the churn at 44° F. and churned 95 minutes, breaking at 55° F., and 15.2 pounds butter were taken from the churn, to which 15.2 ounces salt were added. With the water worked out, there was 15.5 pounds of butter, which analyzed 83.57 per cent. fat. Worked a second time and it weighed 15.4 pounds. There was .077 pounds fat lost in the skim milk and butter milk. The second week 35 pounds cream were placed in the churn at 45° F., and the butter came in 19 minutes at 57° F. The washed butter weighed 14 pounds and 15.2 ounces salt were added. After working, this butter weighed 14.1 pounds and analyzed 88.2 per cent. fat.

During the first week she ate 18¼ pounds each of bran, corn meal and oil meal, and 105 pounds corn silage. The second week 21 pounds each of the same kinds of feed.

This cow is a happy combination of superior dairy type and high class breeding. On May 1 she weighed 880 pounds, and on June 1, 870 pounds. She is seven years old, of deep body, great constitution, has an udder of the desirable type in form, size and quality, while she shows much quality. Her sire is a son of King of St. Lambert 15175, his dam being St. Lambert's Gazelle.78870, while her dam is Charity of Pittsford 2d 88849, a daughter of Exile of St. Lambert 16th 19155, a son of old Exile of St. L. She is one of the most valuable Jerseys in the herd of the Ohio State University.

C. S. PLUMB.

A County Agricultural School.

The Dunn County Agricultural School which opened in Dunn county, Wisconsin last October, completed its first year with every mark of success. The plan was new and the school was really an experiment, but judging from the quarterly bulletin issued by the school, the fifth number of which has just been received at THE STUDENT office, the experiment was successful. The farmers of Wisconsin are known to be a wide awake lot of people and just the type to instigate some such plan as this for improving the educational advantages of their children and for furthering the agricultural development of the state. The school was installed largely through the liberality of the citizens, although the legislature was asked for funds for its maintenance.

The establishment of the school, however, really grew out of a report made by the state superintendent of public instruction, Hon. L. D. Harvey, in which he recommended that the legislature appropriate money for the founding of county schools for teaching

agriculture and domestic economy. Accordingly a bill was passed providing for the establishment of such schools under the provision that the state should pay two-thirds of the running expenses of the school so long as this amount did not exceed \$4000. Under this provision two schools were established last year, one in Dunn county, the other in Marathon county, both of which have passed successful years. .

that the money is used in his own county.

There is surely food for thought in the results that are being attained in these county schools for all who are interested in the advancement of agricultural education. The indications of the times point to a rapid advancement in the secondary and rural schools and there are undoubtedly many counties in every state that could easily support



Students judging a dairy cow at the Dunn County School of Agriculture

The yearly report of the Dunn county school shows the actual expense of maintenance was a little less than \$6000, which would mean practically \$4000 from the state and \$2000 from the county. The taxable property in the county, according to the assessment, is over ten and a half millions, making the actual tax rate for the support of the school a little less than two-tenths of a mill. Surely no farmer who is interested in the education of his children could object to the tax which will be required of him, especially when he considers

such a school, especially if the state should lend some aid.

During the past year the Dunn county school has offered work in agriculture and domestic science in classroom and laboratory work and in manual training; it has instituted a system of milk testing for the farmers of the county, conducted field experiments and accomplished a great deal toward improving the agricultural conditions of the county. Regarding the work the school is doing the quarterly publishes the following: "Besides its main work

of teaching the sons and daughters of farmers, the institution is doing much to help all farmers of the county in a number of ways which are most practical:

"1. By instruction given directly to the people in farmers' institutes.

"2. By free testing of milk from each cow of any dairy herd.

"3. By distribution of farmers bulletins and agricultural books.

"4. By helping rural teachers to handle elementary agriculture and manual work in their schools.

"5. By more or less free seed distribution.

"6. By giving technical information to individual farmers regarding stock, new crops, soils, etc.

"There are several other ways of helping farmers which the school will commence as time and opportunity offer."

The above report is promising and suggestive. If Wisconsin can successfully maintain county agricultural schools there are certainly other states that should be as progressive. Of course such institutions may not be practical in every state or in many states, but some such means of reaching the farmer's sons and daughters must be devised. The agricultural college can never expect to reach but a small percentage directly, and some such uplifting, instructional force must be set at work in the establishment of schools of lower grade, or probably better, in the introduction of this educational factor into schools of our present system.

Professor W. D. Gibbs Advanced.

The many friends of Professor W. D. Gibbs were much pleased to hear of his recent election to the presidency of the New Hampshire State College. President Gibbs, as is well known, was con-

nected with the College of Agriculture at the Ohio State University for several years and was very influential in building up the college to its present standard. Leaving Ohio in the fall of 1901 he accepted the chair of Agriculture at the institution of which he has lately become president. The year following, however, he accepted a similar position at the Texas Agricultural College with which institution he has been associated until his election to the presidency in New Hampshire.

President Gibbs is a man who has made a host of friends in the institutions with which he has been connected, and his last advancement is sufficient proof of his popularity and ability.

During his connection with the Ohio State University his services in furthering the interests of THE STUDENT were of untold value to the magazine and the editors hasten to extend congratulations on his advancement and to wish him every success in his new work.

Dairy Notes.

Mr. E. F. Mangold, who has assisted at the separators in the O. S. U. dairy laboratories during the winter term for two years past, has been elected by the Board of Trustees as a permanent assistant in the dairy laboratory. Mr. Mangold began his duties September 1. The prospects are that there will be over fifty students taking work in the laboratories this fall term and it is becoming absolutely necessary that Professor Decker be relieved of some of the details.

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Mr. C. Ray Perkins, a special dairy student in the class of 1903, is employed as buttermaker in the Lodi, O.,

creamery. He has been making over 2000 pounds of butter per day.

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Mr. George Ruhl, a dairy student of the class of 1901, who has been employed as buttermaker at the Alexandria, O., creamery, is now making butter in the new creamery at Edison.

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Mr. C. W. Bentley, of Circleville, reports that the business of the Circleville creamery is growing. He is making butter from cream separated with hand separators on the farms. He pasteurizes all of his cream thus gathered and adds a starter to ripen it. His butter is not of a "quick" flavor, but keeps well and he has been getting 24 cents for butter when some other creameries were getting but 22. This is a hard nut to crack for those who do not believe that the farm separator is to supersede the skimming station.

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The O. S. U. Dairy School was represented at the State Fair by a working dairy. Milk was skimmed with different makes of separators, and the cream was ripened, churned and worked into butter, which was put up into nice O. S. U. prints, while an interested crowd watched and asked questions. Milk was also tested for the visitors.

Mr. Mangold and Mr. R. C. Donegheue assisted Professor Decker in this work. If money can be had for the purpose a much better equipment should be installed at the fair next year. The people are interested in such demonstrations.

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Mr. D. A. Crouner was superintendent of the dairy exhibit at the State Fair. The exhibits were better than ever. Mr. E. W. Hoyt, in charge of the De Laval Separator interests had built

a beautiful booth, while the Vermont Farm Machine Company and the Empire Separator Company, represented by R. Anthony, also had greatly improved exhibits.

The McCray Refrigerator Company had a fine exhibit of different styles of refrigerators. The cheese exhibit was shown in these refrigerators.

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Mr. E. T. Sheldon of Columbus, distributor of Sunbury creamery butter, had a very fine display of butter. The cow made out of butter was there again this year and brought a calf made out of butter with her. Thousands of people came into the building inquiring for the butter cow and then crowded around the end of the big glass refrigerator.

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Galena creamery had a fine exhibit also and took first premium over Sunbury by a small margin.

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Mr. B. B. Herrick exhibited a cheese made with pepsin which scored 98 and took first prize.

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Professor G. L. McKay, of Iowa, scored the dairy products. He greatly admired the fine equipment on the State Fair grounds.

Farmer Children Need Farmer Studies.

Our educational system has been made by city people, and the country school finds it second-hand, ill-fitting and unattractive. To this fact more than to any other, perhaps, is due the backwardness of education in agricultural states. The school has not taken hold on farm life. Plants, soils, animals, insects, flowers, the weather, the forests and the sky—from all these things it has stood apart, while it has babbled of sub-

jects unfamiliar and uninteresting to the country bred child. All rural education has been hacked and hewed to fit the Procrustean bed of the city model.

This is a severe indictment of our present method, but it is not a whit too severe. To find proof you have only to examine the text-books in use in our rural schools. Apparently they have been written solely for city children, sons and daughters of clerks, merchants, bankers and traders. They do not even suggest to the farmer's child the possibilities of science and training in agricultural work. On the contrary, the natural and logical inference from our general scheme of rural instruction is that education is not indispensable to the farmer, but is intended chiefly for the commercial and professional classes.

—*From August World's Work.*

Live Stock at the Louisiana Purchase Exposition.

The Louisiana Purchase Exposition, in recognition of the magnitude and importance of the live stock industry, and appreciating that St. Louis, the seat of the World's Fair of 1904, is practically the geographical center of the largest improved stock-producing area on the globe, has appropriated a quarter million dollars to prizes for which the world's stockmen are invited to compete.

This vast sum makes possible a classification much in advance of any heretofore attempted, with prizes on a scale of generosity before unknown in the history of expositions. The largest sum previously offered by a like enterprise was \$142,500 at the Columbian in Chicago in 1893.

In the classification every branch of improved animal industry is to have its

proportionate recognition, whether it be the percherons, short-horns, pigeons or pointers; whether the meek-eyed cows from the Channel Islands or descendants of the American bison that once made populous the plains beyond the Missouri; whether the petite ponies from the Shetland Isles or the robust mule that has in recent years so rapidly advanced in public esteem by his proven usefulness in war no less than in the prosaic paths of peace.

For the accommodation of the array of exhibits which will compete for the prizes offered, the management has allotted thirty acres of the most desirable ground in all the exposition tract of over twelve hundred acres, most of which it overlooks, and upon this hill will erect the requisite buildings, combining the desired modern features of utility and adaptation with harmonious and pleasing architectural effect. The building scheme will comprehend between forty-five and fifty structures, including thirty-three barns to accommodate eighty or ninety horses and cattle each, several others with slightly less capacity, four octagonal barns, 100x100 feet, to accommodate cows to be used in a dairy demonstration, with silos and feed barns a grand amphitheatre and arena, 250x450 feet, for an exhibit ring, and a building for public sales of live stock and for stockmen's conventions, in which will also be made the exhibits and demonstrations with relation to live stock under the auspices of the Association of American Agricultural Colleges and Experiment Stations.

Aside from those usually shown various classes of horses not previously taken up at expositions, such as those of artillery, cavalry and ambulance use in the military service, fire department, express and ambulance horses for city

purposes, will be given the consideration their importance justifies.

Cattle, sheep and swine, as with horses, will be given such a wide range of prizes as to reward generously, independent of the specials given by states and breeders' organizations, the exhibitor, the breeder and the feeder, aggregating offerings so inviting that they must attract the choicest products that pasture and feed-lot, supplemented by human skill, have yet evolved.

One of the most interesting and instructive features planned for the exposition will be a comparative test of breeds of cows with reference especially to their dairy qualities in both butter and cheese production, and incidentally their gains in flesh.

Poultry, pet stock, dogs and the minor animals and fowls are to be recognized more fully than has ever before been done, and every energy will be bent to have at St. Louis in 1904, along with the other magnificent arrays of the world's most interesting and best, the most extensive and instructive presentation of animal exhibits ever assembled.

University News.

The Veterinary College has moved into its new quarters in the Veterinary Building. This will give considerable more room in Townshend Hall for the Agricultural Department. The Veterinary Building, as completed, is one of the most modern buildings of its kind in the country and when completely equipped will be most convenient and satisfactory.

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The new Engineering Building has just been completed and will soon be equipped and ready for use.

The site for the new Physics Building will probably be in the southeastern part of the campus, between Biological Hall and the Library.

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C. B. Hoover, O. S. U., '03, will take graduate work in the University this year.

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Professor Plumb judged dairy cattle at the West Virginia fair at Wheeling, September 8 and 9 and also at the Kentucky State Fair at Owensboro, September 22-25.

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Oscar Erf, O. S. U., '99, has been appointed Professor of Animal and Dairy Husbandry at the Kansas Agricultural College at Manhattan.

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Mr. C. C. Hayden, O. S. U., '00, has been appointed assistant in the Dairy Department at the University of Illinois. Mr. Hayden took special work at the University of Wisconsin last year.

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Miss Lucy Clawson, O. S. U., '03, has been appointed to a position in domestic science in Wisconsin.

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F. E. Hamilton, of last year's class in agriculture, is assistant in agriculture at Berea College, Kentucky.

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The attendance at the O. S. U. Lake Laboratory for the summer session was very good and a very successful summer session was held. The new laboratory building added much to the efficiency and scope of the work.

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Mr. H. A. Clark, O. S. U., '02, who is with the Division of Tobacco Investigations, of the Bureau of Soils, has been assigned to the tobacco region of Montgomery county, Ohio.

La Motte Ruhlen '02, is with the Bureau of Soils and is stationed in Indiana.

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Professor Vivian took special work at Harvard during the summer vacation.

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The live stock department of the University was represented at the State Fair by several animals. The shorthorn bull, Bapton Lorat, the Jersey cow, King of St. L.'s Jewel of C. H., the Jersey bull calf, King's University Lad, and four yearling wethers were shown. They were not entered for competition, however, but were merely for exhibition purposes.

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There was purchased at the State Fair for the University herd, the second prize Berkshire boar, over 6 and under 12 months of age. He is to be shown the rest of the season and then shipped to the University. A large Yorkshire boar was purchased during the summer, of Bowmont herd, Salem, Va.

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Mr. F. W. Taylor, O. S. U., '00, has been appointed Professor of Agronomy at the New Hampshire State College and has entered upon his duties. Mr. Taylor is one of the most promising graduates of the College of Agriculture and has for the past two years been associated with the Bureau of Soils, United States Department of Agriculture, in which he has had excellent experience.

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Mr. C. N. Mooney and L. C. Britton, of the Bureau of Soils, were detailed for special work in the Bahama Islands early in the summer and spent two months in that region.

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The University of Illinois bestowed the degree of Doctor of Science upon

Professor Hunt at its last commencement.

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E. L. Shaw, O. S. U., '02, has accepted a position in animal husbandry at the New Hampshire State College. Mr. Shaw has been located at the Missouri Agricultural College.

Agricultural News.

The Iowa Agricultural College has founded a department of farm mechanics and C. J. Zintheo has been elected as professor. The work is to include not only the line of farm machinery and farm appliances, but drainage, water supply, etc. Prof. Zintheo has had wide experience with agricultural machinery and thorough training along lines which will fit him for the work.

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Mr. J. A. Bonsteel, of the Bureau of Soils, U. S. Department of Agriculture, has been detailed to give a course of lectures on soils at Cornell University the coming year. Mr. Bonsteel is a graduate of Cornell and has had wide experience with the Bureau of Soils.

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The state appropriation for the University of Illinois this year reached the enormous sum of \$1,260,000. The College of Agriculture received \$100,000 as a special fund for equipment and instructional work, and the experiment station \$170,000 for research work. The ordinary operating fund is now \$350,000 per year.

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The trustees of the University of Maine have passed a resolution to establish a secondary school in agriculture with a two-years' course which shall be entirely distinct from the college course. It will consist of a fall, spring and summer term the first year, and a fall and

spring term in the second year, or five terms in all, with a total of sixty-two weeks.

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Professor H. J. Waters, of the Missouri Agricultural College, has been appointed superintendent of agriculture for the Missouri exhibit at the St. Louis Exposition and has been granted a year's leave of absence for the purpose.

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The Maine legislature has appropriated \$2500 a year for a Department of Forestry at the University of Maine and the trustees have authorized the appointment of a professor of forestry.

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Cornell University has recently acquired three new farms which, with its campus give the university 460 acres of land, 275 of which are available for the use of the Agricultural Department.

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John A. Craig, formerly of the Iowa Agricultural College, has been appointed director of the Texas station to fill the vacancy left by the resignation of Prof. W. D. Gibbs.

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Frank G. Miller, of the Yale School of Forestry, has been elected professor of forestry at the Nebraska University.

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Mr. P. J. Parrott, entomologist at the Ohio station, has accepted a position in entomology at the New York state station and will take up his work soon.

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The Pennsylvania State College received from the last legislature an appropriation of \$250,000. Of this amount \$100,000 was specially given for an agricultural building, while \$150,000 additional will probably be allowed for this purpose also, making the total cost of the building and equipment \$250,000. It is said that at no period of the bill's

passage through the legislature was a vote recorded against it.

Ohio at the St. Louis Exposition.

Ohio's headquarters at the World's Fair will be a handsome building costing \$30,000. The state appropriation is \$75,000.

The site for the Ohio Building allotted to the state commission is a favored one, adjoining Missouri on one side and Illinois on the other. It is east of the United States Government Building, and is on the main roadway leading from the U. S. Fisheries pavilion through the state buildings.

The main front of the building faces west. It will stand on a knoll 10 feet high, overlooking the other state buildings in the vicinity. The site is surrounded by large trees. The slope on all sides from the building will permit a series of terraces, which will bring out the distinguishing architectural features of the building. The pavilion will be of staff, finished in ivory tint. The roof is to be dark gray, and the ridgings, crestings, and finals carried out in gold leaf. The building is to be two stories high. Large porches will add to the beauty of the structure at the north and south ends, and provide ideal resting places for Ohioans and their friends.

The chief entrance to the main floor is from the west. Six foot columns three feet in diameter and thirty feet high stand at the entrance. Three large doors open into the main rotunda, which is 29x54 feet, two stories in height, and finished with a domed ceiling. Adjoining the main rotunda are rooms for the bureau of information, postoffice, check-room, telephone and telegraph offices. Spacious apartments are provided for women.

Book Reviews.

ENGINEERING FOR LAND DRAINAGE. A Manual for Laying Out and Constructing Drains for the Improvement of Agricultural Lands. By C. G. Elliott. John Wiley & Sons, New York. 12 mo. 232 pages, 47 figures and half tones. Price, \$1.50.

The author of this book is a well-known authority on questions relating to drainage, especially those of a practical nature, and his preceding book, entitled "Practical Farm Drainage," has been very popular. The later publication is written from the viewpoint of the of the engineer, but nevertheless it contains a great deal of valuable information for the practical farmer.

The book opens with a brief reference to the importance of the drainage engineer, the agriculturist and soil drainage, followed by a chapter on soils and their physical properties before taking up the theory and practice of drainage. Then follows a valuable and clear-cut treatise on the relation of topography to drainage, the laying out of drains, leveling and fixing of grades, the flow of water through pipes, and size of tile, with a series of chapters on special cases in drainage, such as open drains, road drainage, etc.

The book is carefully arranged, most pleasing in appearance and is a valuable edition for drainage engineers, farmers and for agricultural colleges.

ANGORA GOAT RAISING. By George F. Thompson. American Sheep Breeders' Company, Chicago. Handsomely illustrated, 235 pages. Price, \$1.00.

The remarkable interest that has developed within the last few years regarding the raising of Angora goats has created a great demand for definite and concise literature on the subject. The ease with which these animals can be

reared and the value of both fleece and meat have undoubtedly caused this great stimulus in their production and the increasing importance of the industry warrants the publication of such editions as the above-named book. The author is already widely known as an authority on Angoras through his publications from the Bureau of Animal Industry of the U. S. Department of Agriculture, and this publication is an attempt to place in convenient and practical form the information which is at present so much in demand regarding Angora goat raising.

The book is logically arranged, carefully written and pleasingly illustrated. It is clearly what it is intended to be—a manual for Angora goat raisers, and those interested in these animals or in the mohair industry will find it a most useful publication.

THE DOMESTIC SHEEP. By Henry Stewart. American Sheep Breeder Company, Chicago; 380 pages, abundant illustrations. Price, \$1.50

The increasing importance of sheep raising in the economy of American farm practices has created a demand for a book of this sort. Mr. Stewart's earlier publication, "The Shepherd's Manual," being familiar to many, this second and more complete work has been welcomed.

The book is a thorough and careful treatment of the subject of the domestic sheep and covers the following subjects: The natural history of sheep, the varieties and breeds, the science and art of breeding, barns and stables, wool, its history, uses, care etc., and the diseases of sheep, with a short final discussion of the goat. Each subject is treated with sufficient exhaustiveness to appeal at once to breeder and student alike.

